

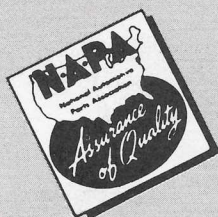
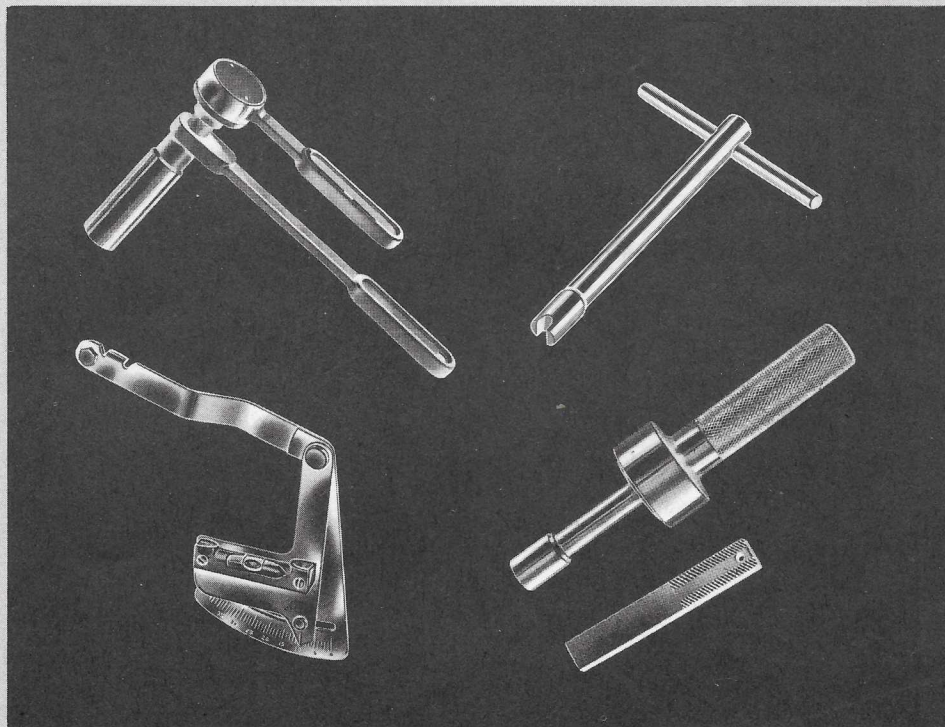
1951-1957

FORDOMATIC • MERCOMATIC

TRANSMISSION SERVICE TOOLS

Mercomatic Tools also Apply to 1956-57 Lincoln and Studebaker
Automatic Transmissions

Catalog No. AD-431



New Britain
HAND TOOLS

THE NEW BRITAIN MACHINE CO., NEW BRITAIN, CONN., U.S.A.

New Britain

These new FORDOMATIC and MERCOMATIC transmission tools open up profitable new repair services for automotive mechanics. Packaged complete with illustrated instructions, these top-quality mechanics tools are engineered to save time and trouble.

FRONT BAND ADJUSTING TOOL

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Tool complete with carefully machined $\frac{1}{4}$ " block-type gauge.

Part No.

Std. Pkg.

AF-10

1

Instructions: Drain transmission fluid. Remove transmission oil pan and fluid screen.

Using $\frac{9}{16}$ " Wrench, loosen front Servo adjusting-screw lock nut two complete turns, then loosen adjusting screw five complete turns using the Front Band Adjusting Tool. Pull back on actuating rod and insert $\frac{1}{4}$ " gauge-block of Adjusting Tool between adjusting screw and Servo piston stem (Fig. 1). Tighten adjusting screw until friction clutch of Torque Screw Driver slips.

Now loosen adjusting screw exactly one complete turn. Holding adjusting screw stationary, tighten lock nut. Remove gauge-block.

Replace fluid screen and transmission oil pan, using new gasket. Replace drain plug. Re-fill transmission with fluid.

AF-10

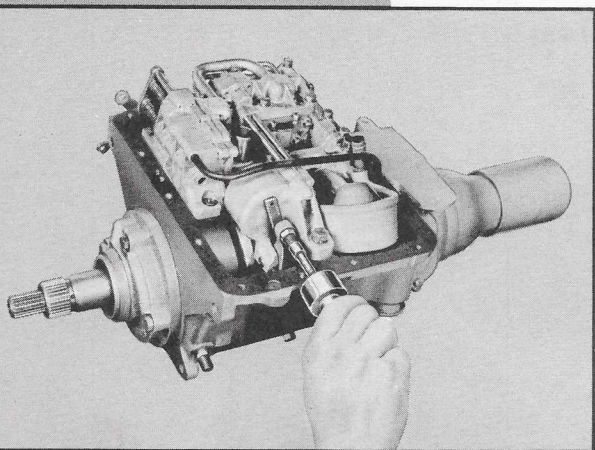
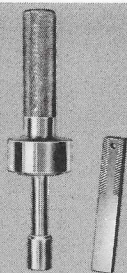


FIG. 1

REAR BAND ADJUSTING TOOL

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Precision-made of finest alloy steel, this useful Tool assures fast, accurate adjustment of transmission rear bands.

Part No.

Std. Pkg.

AF-11

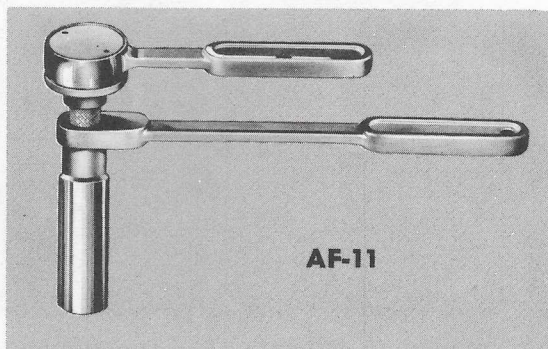
1

Instructions: Remove floormat and floorboard access cover, exposing right side of transmission. Insert Rear Band Adjusting Tool in floorboard access hole, placing outer Socket over adjusting-screw lock nut and engaging adjusting screw by turning Torque Wrench handle (Fig. 2).

After loosening adjusting-screw lock nut, loosen adjusting screw until it turns freely. Then tighten adjusting screws until friction clutch of Torque Wrench slips.

Now loosen adjusting screw exactly $1\frac{1}{2}$ turns. Holding adjusting screw stationary, tighten adjusting-screw lock nut.

Replace floorboard access cover and floormat.



AF-11

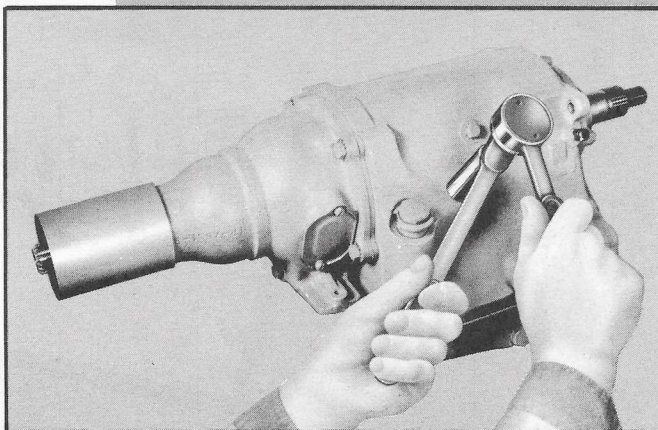


FIG. 2

New Britain

THROTTLE LEVER PROTRACTOR GAUGE

For all 1951-56 FORDOMATIC and MERCOMATIC transmissions. Used to check oil pressures in relation to angular movement of the throttle lever shaft as specified by the manufacturer.

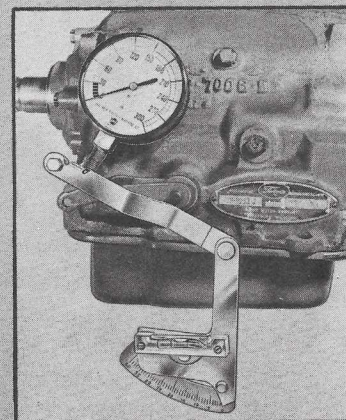
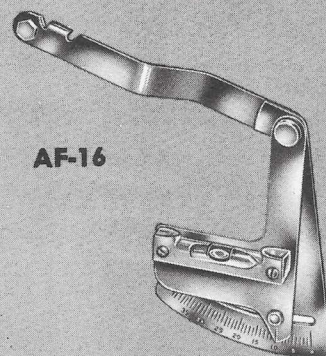
Part No.

AF-16

Std. Pkg.

1

Instructions: Secure protractor gauge to the throttle lever as illustrated. While holding throttle lever up against the internal stop, position protractor gauge at 0 setting. Adjust level so that bubble is centered. Angular movement of the throttle lever will cause protractor bubble to move. Adjustment of the protractor to center bubble will indicate movement in degrees of the throttle lever.



THROTTLE LINKAGE GAUGE

For 1954 FORDOMATIC transmissions. Used to position throttle linkage for accurate adjustment.

Part No.

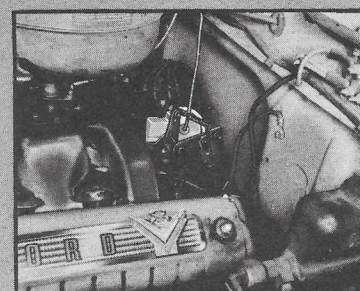
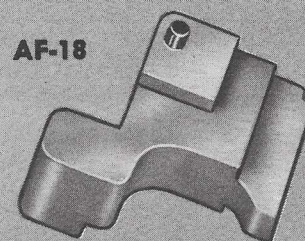
AF-18

Std. Pkg.

1

Instructions: For Passenger car adjustment, position gauge block on linkage as illustrated with the gauge pin inserted through the hole provided in the throttle linkage.

For truck adjustment, the position of the gauge block is reversed so that the other pin is used.



THROTTLE LINKAGE CONTROL PIN

For 1955-57 FORDOMATIC and 1954-57 MERCOMATIC transmissions. Used to position throttle linkage for accurate adjustment.

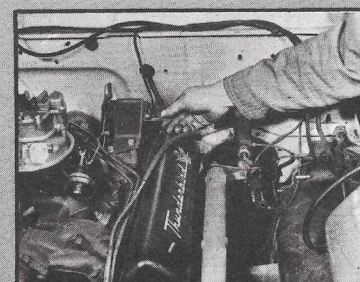
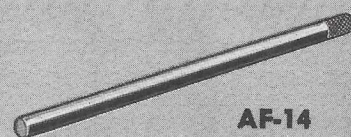
Part No.

AF-14

Std. Pkg.

1

Instructions: Install pin through the indexing holes as shown in illustration to lock linkage in position for adjustment.



New Britain

THROTTLE LINKAGE GAUGE

For 1951-52-53 FORDOMATIC transmissions. Used to position throttle linkage for accurate adjustment.

Part No.

Std. Pkg.

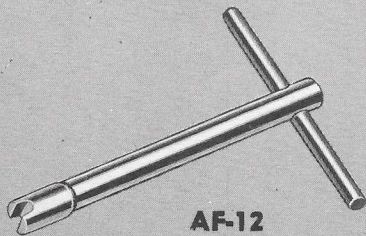
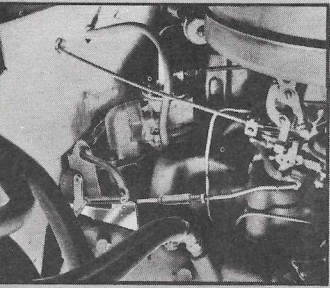
AF-19

1

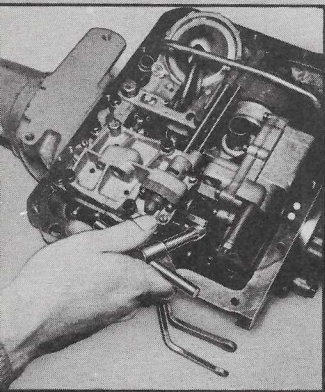
Instructions: Place the adjusting tool on the end of the carburetor to "Z" bar rod. Tool must rest on the clean finished surface of the cylinder block as illustrated. While holding the rod at the bottom of slot of the adjusting tool, loosen the lock nut on adjusting bolt. Turn the bolt until the leg of the tool just touches the accelerator shaft. Tighten the lock nut.

Loosen the lock nut on the carburetor to "Z" bar rod. Turn the barrel of the rod until the idle adjustment screw just touches the stop while the rod is held at the bottom of the tool slot. Tighten lock nut.

AF-19



AF-12



THROTTLE VALVE STOP BENDING TOOL

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Used to adjust 0 setting of the throttle valve stop.

Part No.

Std. Pkg.

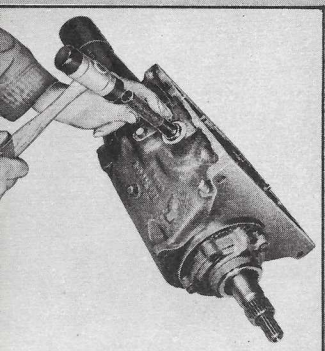
AF-12

1

Instructions: Install the notched end of the bending tool over the throttle arm stop as illustrated.



AF-13



MANUAL SHAFT SEAL INSTALLER

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. When installing in the transmission case, the seal installer must be used to prevent distortion and damage to the seal.

Part No.

Std. Pkg.

AF-13

1

Instructions: Remove the old manual control shaft seal and place new seal on the installer. Drive seal into position in the transmission case with seal installer as illustrated.

New Britain

SEAL PULLER

For all 1951-54 FORDOMATIC and MERCOMATIC transmissions. Also used for all 1946-55 HYDRAMATIC transmissions except Cadillac, Lincoln, and 1952-55 Oldsmobile. Used in conjunction with slide hammer, the Seal Puller permits quick removal of the rear bearing retainer oil seal. May be used with transmission in or out of vehicle.

Part No.

Std. Pkg.

ASP-2

1

To remove Oil Seal: Back off spreader bolt, allowing Seal Puller leaves to close. Insert Puller around transmission output shaft and into rear bearing retainer oil seal as shown in illustration. Tighten spreader bolt, opening Puller leaves until flanges lock securely into oil seal, and install slide hammer shaft on threaded Puller hub. A few sharp blows of slide hammer will then extract oil seal from housing.

SLIDE HAMMER ONLY

Part No.

Std. Pkg.

P-148-5

Used with ASP-2 Seal Puller

1

6 IN 1 SEAL DRIVER SET



ASD-8 ADAPTER DRIVER
For driving all Adapters in Seal Driver Set ASD-6.



**ASD-4
OUTPUT SHAFT SEAL DRIVER**

Ford: 1951-1957
Mercury: 1951-1957
Oldsmobile: 1940-1942
1946-1951
Pontiac: 1948-1955
Kaiser: 1950-1955
Nash: 1950-1955
Hudson: 1950-1955



**ASD-5
FRONT PUMP SEAL DRIVER**
For use on all Fordomatic and Mercomatic Transmissions through 1957.



**ASD-7
FRONT PUMP SEAL DRIVER**
For use on all Hydramatic Transmissions from 1946 through 1955.

SEAL DRIVER SET Complete ASD-6

ASD-4, ASD-5, and ASD-8 for all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Also all Seal Drivers can be used on other cars as listed. The rugged, top quality alloy steel Seal Driver Set, with rust-proof Black Oxide finish, provides the right combination for installing both front and rear oil seals FAST and EASY. Permits installation of seals without removing pumps from transmissions. Proper fit prevents the seal distortion that causes oil leakage.

Part No.

No. in Pkg.

ASD-6

1 Set

ASD-1

1 ea.

ASD-2

1 ea.

ASD-3

1 ea.

ASD-4

1 ea.

ASD-5

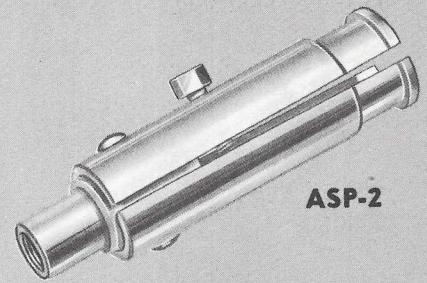
1 ea.

ASD-7

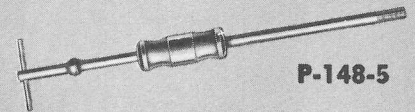
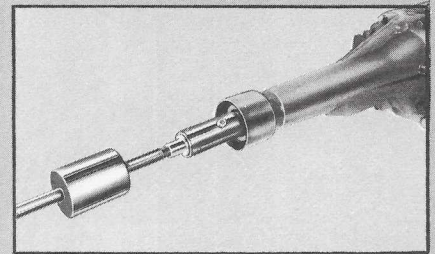
1 ea.

ASD-8

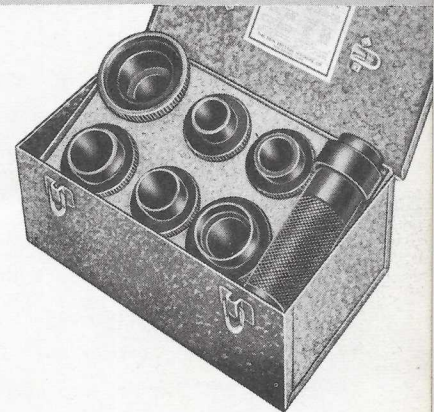
1 ea.



ASP-2



P-148-5



**ASD-1
FRONT PUMP SEAL DRIVER**
For use on all Dynaflo Automatic Transmissions through 1955.



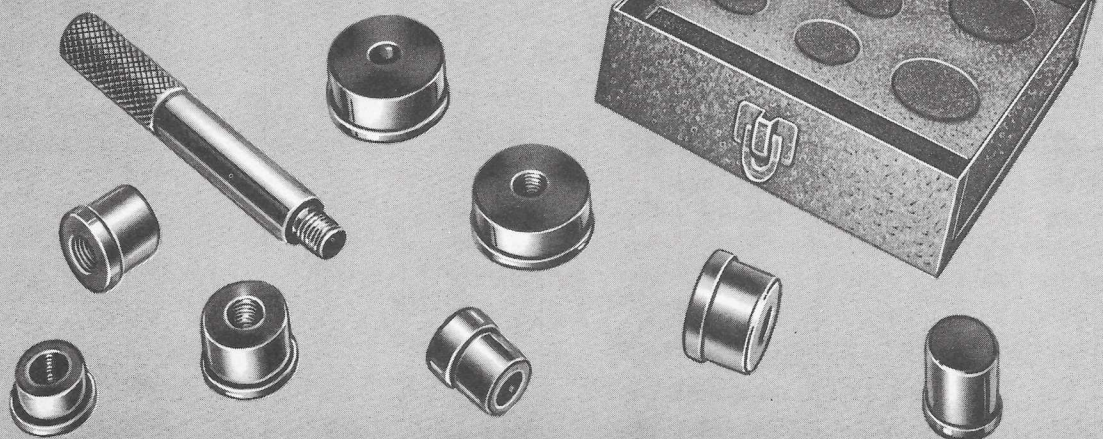
**ASD-2
FRONT PUMP SEAL DRIVER**
For use on all Powerglide Automatic Transmissions through 1955.



**ASD-3
OUTPUT SHAFT SEAL DRIVER**
Cadillac: 1946-1955
Lincoln: 1949-1955
Oldsmobile: 1952-1955

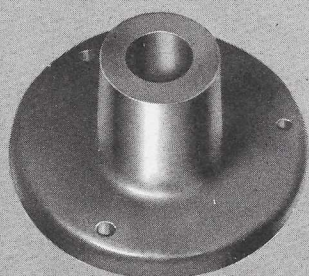
New Britain

BUSHING REMOVER AND INSTALLER SET

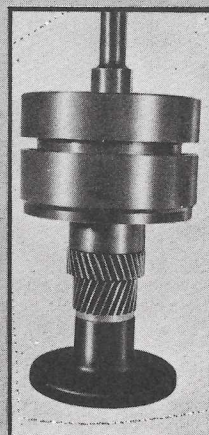


For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Worn bronze and babbitt bushings can be replaced quickly and easily, without damage to bushings, with these carefully engineered, precision-made Tools. This Set saves time and money by eliminating the need to replace complete transmission components when bushing wear is the only problem.

Part No.	Description	Std. Pkg.
AF-109	Set, complete with Driver and 8 Adapters	1 Set
AF-1	Adapter: Rear Pump Bushing — 1951-57	1
AF-2	Driver Handle	1
AF-3	Adapter: Rear Clutch Sun Gear #A — 1951-57	1
AF-4	Adapter: Rear Clutch Sun Gear #B — 1951	1
AF-5	Adapter: Rear Clutch Sun Gear #C — 1951-57	1
AF-6	Adapter: Pinion Carrier — 1951-57	1
AF-7	Adapter: Output Shaft — 1951-55	1
AF-8	Adapter: Front Pump Bushing — 1951-57	1
AF-9	Adapter: Case Bushing — 1951-57	1



AFP-3



PLANETARY HOLDER

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Attached to bench as shown at left, Fixture holds shaft upright as parts are assembled.

Part No.	Std. Pkg.
AFP-3	1

New Britain

STATOR SPRAG INNER RACE REPLACER

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Used to facilitate installation of the inner race to the sprag assembly.

Part No.

Std. Pkg.

AF-15

1

Instructions: Insert tool, tapered side first, in the sprag assembly while rotating the tool counter clockwise. Guide the tool while pushing the inner race into position.

REAR PUMP DISCHARGE TUBE REMOVER

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Used to remove discharge tube from the rear pump and transmission case.

Part No.

Std. Pkg.

AF-17

1

Instructions: Insert threaded end of tool into rear pump discharge tube. Turn T handle in a clockwise direction until threads of tool are firmly seated. Pull discharge tube from rear pump and transmission case as illustrated.

TRANSMISSION HOLDING FIXTURE

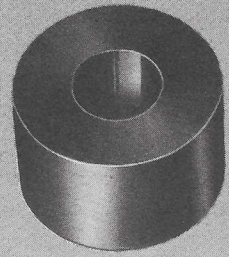
For all FORDOMATIC, MERCOMATIC, HYDRAMATIC, POWERFLITE and standard transmissions. This universal tool can be used for most automatic and standard transmissions to support the unit in any working position. Swivels full 360° to facilitate easy disassembly and assembly of transmission.

Part No.

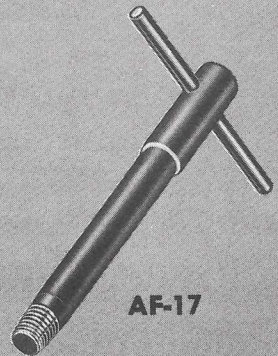
Std. Pkg.

ATH-1

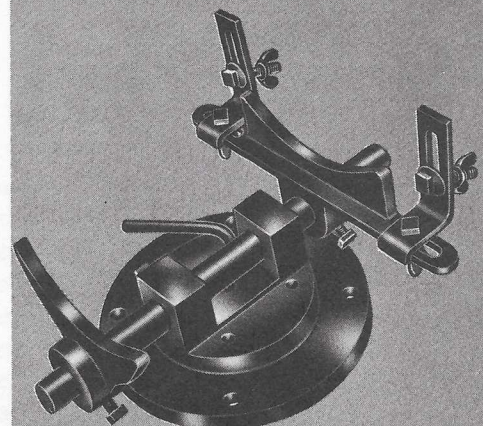
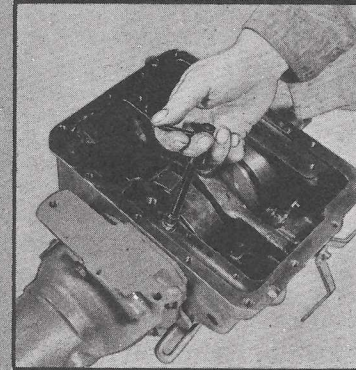
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AF-15



AF-17

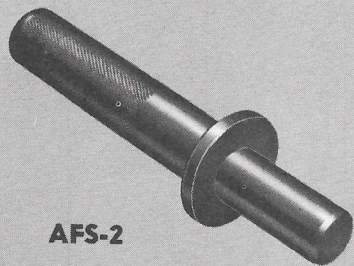
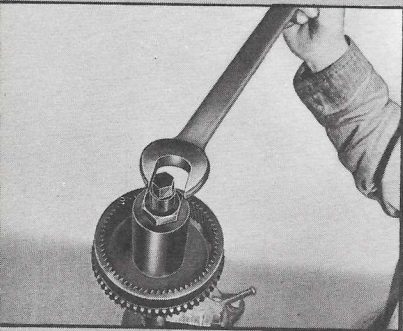


ATH-1

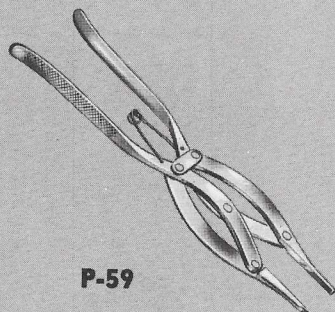
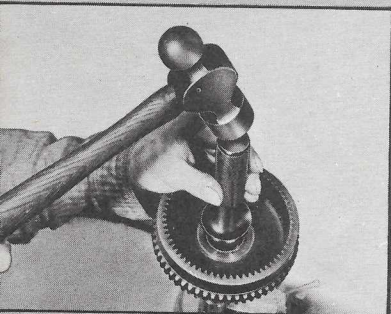
New Britain



AFS-1



AFS-2



P-59

OUTPUT SHAFT SLEEVE PULLER

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. This sturdy Puller reaches into the Output Shaft, grips the Output Shaft Sleeve firmly and pulls it out safely with a minimum of effort. Puller action is simple and positive, making an almost impossible job easy for the mechanic—making it unnecessary to discard the entire Output Shaft assembly when sleeve becomes scored and worn.

Part No.

Std. Pkg.

AFS-1

1

To remove Output Shaft Sleeve: Secure output shaft in vise. Insert threaded end of Puller into output shaft sleeve and start Puller threads into sleeve by hand. Using a $\frac{3}{4}$ " Socket Wrench and Flex Handle, continue turning Puller until tapered end is threaded deep into sleeve bore. (In order to assure a positive grip, the Puller cuts its own threads in the sleeve. Therefore, exert considerable pressure with the Flex Handle until the Puller is deeply seated and firm enough to hold fast as the sleeve is pulled.) Install Puller Bridge and Nut, as illustrated. Tighten Puller Nut until sleeve is pulled free of output shaft.

OUTPUT SHAFT SLEEVE INSTALLER

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Output Shaft Sleeves can be installed quickly and properly with this precision-made Tool. The Installer seats sleeves accurately and surely without damage to sleeve during installation.

Part No.

Std. Pkg.

AFS-2

1

SNAP RING PLIERS

Pliers remove snap rings quickly and easily without damaging snap rings or bearing surfaces.

Part No.

Std. Pkg.

P-59

1

New Britain

FRONT CLUTCH DIAPHRAGM SPRING COMPRESSOR

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Compressor speeds and simplifies assembly of Front Clutch by eliminating need for a press during installation of Diaphragm Spring Retainer Ring.

Part No.

Std. Pkg.

AFC-1

1

To install Retainer Ring: Place Drawblock in vise. Install Apply Piston, Diaphragm Spring and Retainer Ring in Clutch Drum and center this assembly on Drawblock. Insert Compressor Plate in Clutch Drum and start Drawbolt through Plate into Drawblock as illustrated (do not tighten Drawbolt). Insert Guide Pins through Compressor Plate and into notches in Diaphragm Spring, making certain Pins do not rest on Apply Piston ribs. Turn each Guide Pin until it drops as far as possible through Diaphragm Spring notch into Apply Piston recess. This will center the Diaphragm Spring. Tighten Drawbolt until Retainer Ring expands into ring groove.

REAR CLUTCH SPRING COMPRESSOR

For all 1951-57 FORDOMATIC and MERCOMATIC transmissions. Compressor permits removal of Apply Piston without use of a press by simplifying removal of Clutch Assembly Snap Ring. Safe Drawbolt tension frees both hands for work with other tools and parts.

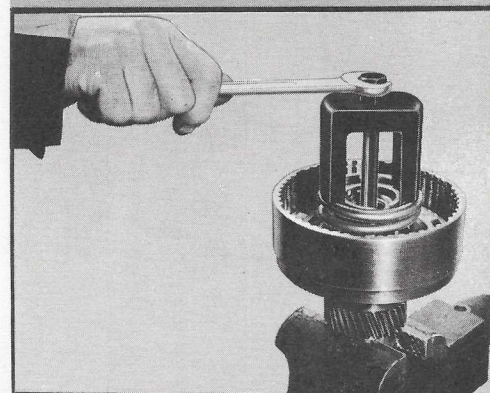
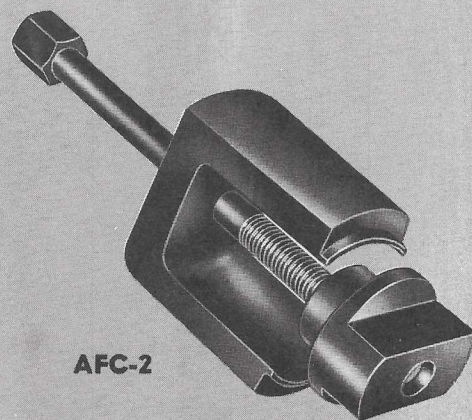
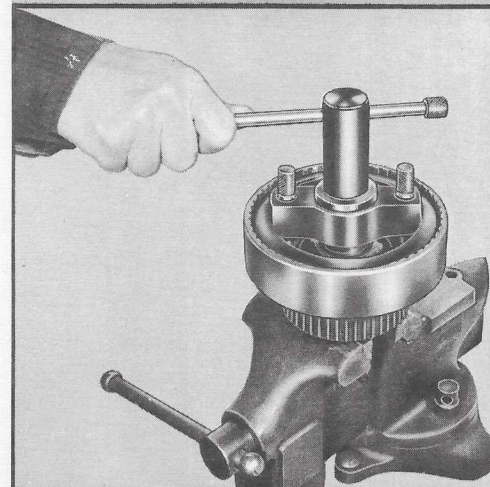
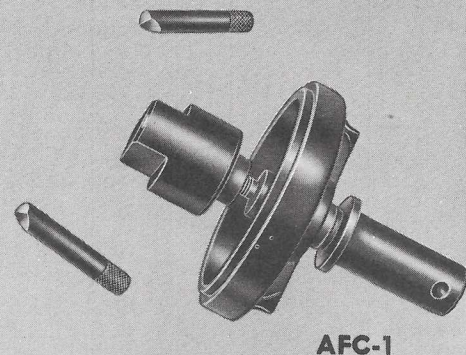
Part No.

Std. Pkg.

AFC-2

1

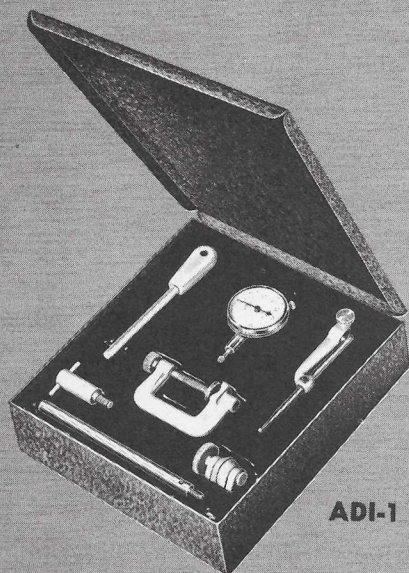
To remove Clutch Assembly Snap Ring: Place Drawblock in vise and position Clutch Drum as shown in illustration. Place Bridge over Clutch Spring Retainer and insert Drawbolt through Bridge. Then tighten Drawbolt slowly until Clutch Spring is compressed sufficiently to permit removal of Snap Ring. Clutch Assembly Snap Ring can be installed easily by using the Compressor in the same manner.



New Britain

DIAL INDICATOR

For all automatic transmissions. This handy Gauge is useful for many service operations on FORDOMATIC, MERCOMATIC and other automatic transmissions, as well as during repair of engines, differentials, standard transmissions, clutches, etc., in accordance with car manufacturers' instructions.



Part No.

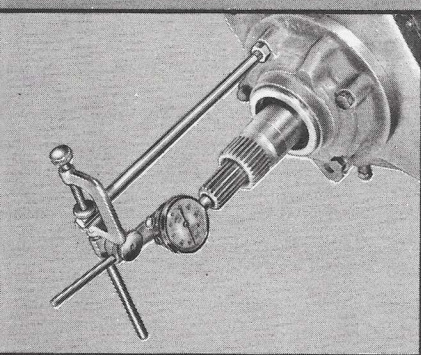
Std. Pkg.

ADI-1

1

DIAL INDICATOR EXTENSION ROD

For all 1951-57 FORDOMATIC transmissions. Remove front pump attaching bolt and install Dial Indicator extension rod to support Dial Indicator for checking end clearance.



Part No.

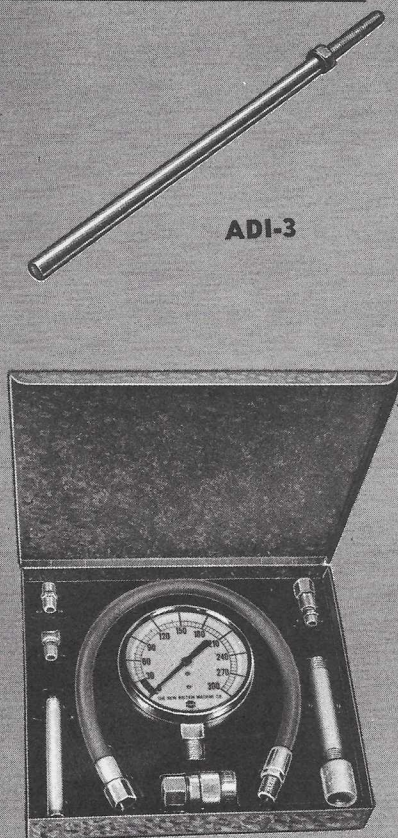
Std. Pkg.

ADI-3

1

OIL PRESSURE GAUGE

For all automatic transmissions. Proper operation of the FORDOMATIC, MERCOMATIC and other automatic transmissions is dependent upon correct oil pressure at all operating speeds in all driving ranges and under all driving conditions. The Gauge is used to determine whether oil pressures are within car manufacturers' specifications and as an aid to diagnosing various transmission troubles. Reading up to 300 lbs. pressure, this Gauge has a 3½" face with colored scale graduations for easier reading and incorporates a damper to absorb minor pressure surges, providing greater accuracy and preventing damage to Gauge. Complete with adapters and fittings for all automatic transmissions, 18" flexible hose and quick-change couplings to facilitate installation. All packed in a sturdy metal case. Gauge is durable and accurate, provides large capacity for a variety of tests.



Part No.

Std. Pkg.

AOP-1

1

AOP-1

New Britain

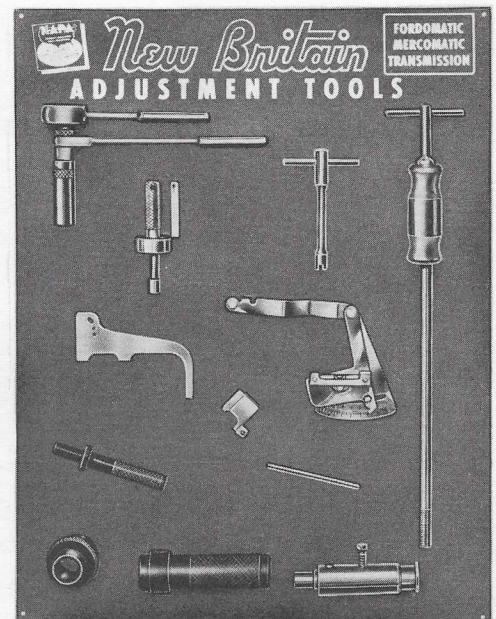
FORDOMATIC • MERCOMATIC

TRANSMISSION TOOL BOARDS FOR MECHANICS

With the number of FORDOMATIC and MERCOMATIC transmissions on the road steadily increasing, these eye-catching tool boards are just what mechanics need to service them. Their low cost will enable many service stations to begin making the profits of automatic transmission service. Designed to display the mounted tools and keep them always within easy reach, the boards also announce to the car owner that facilities and know-how are available for expert FORDOMATIC and MERCOMATIC transmission service. There is no duplication on either board and the two of them provide for complete FORDOMATIC and MERCOMATIC transmission service.

ADJUSTMENT TOOL BOARD

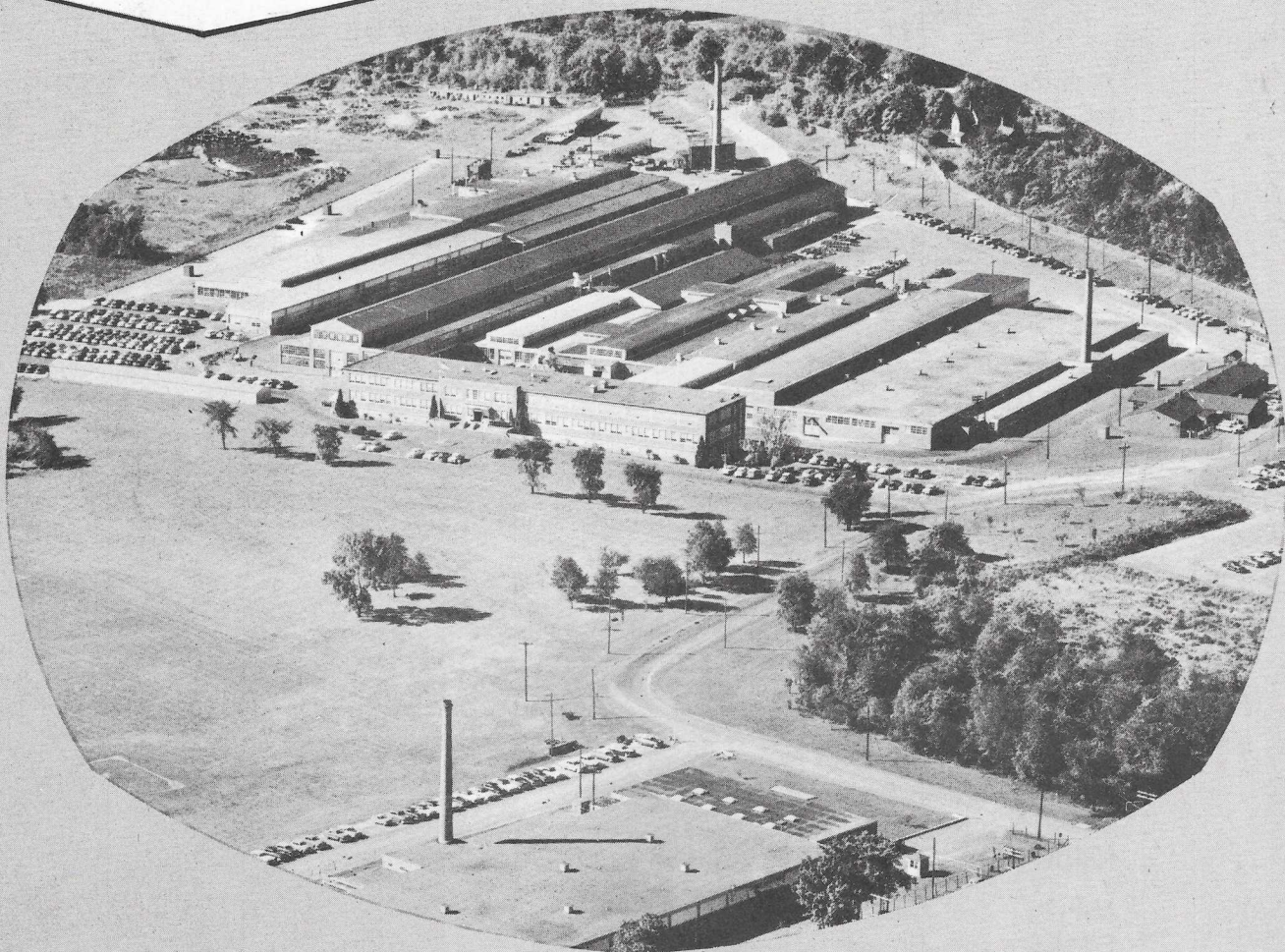
Part No.	Description
AFB-12	Service Kit Board Complete with 12 Adjustment Tools
AF-10	Front Band Adjusting Tool
AF-11	Rear Band Adjusting Tool
AF-12	Throttle Valve Stop Bending Tool
AF-13	Manual Shaft Seal Installer
AF-14	Throttle Linkage Control Pin
AF-16	Throttle Lever Protractor Gauge
AF-18	Throttle Linkage Gauge (1954)
AF-19	Throttle Linkage Gauge (1951,52,53)
ASD-4	Output Shaft Seal Driver
ASD-8	Adapter Driver For ASD-4, ASD-5, and ASD-8
ASP-2	Seal Puller
P-148-5	Slide Hammer
AFBB-12	Display Board Only



REPAIR TOOL BOARD

Part No.	Description
AFB-10	Service Kit Board Complete with 10 Repair Tools
ADI-3	Dial Indicator Extension Rod
AF-15	Stator Sprag Inner Race Replacer
AF-17	Rear Pump Discharge Tube Remover
ASD-5	Front Pump Seal Driver
AFC-1	Front Clutch Diaphragm Spring Compressor
AFC-2	Rear Clutch Spring Compressor
AFP-3	Planetary Holding Fixture
AFS-1	Output Shaft Sleeve Puller
AFS-2	Output Shaft Sleeve Installer
P-59	Snap Ring Pliers
AFBB-10	Display Board Only

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NEW BRITAIN
MACHINE COMPANY
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HOME OF
New Britain
HAND TOOLS



I N D E X

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